



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,342	04/19/2001	Kazumitsu Watanabe	206154US-2	7693

22850 7590 01/12/2006

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

DANIELS, ANTHONY J

ART UNIT PAPER NUMBER

2615

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/837,342	Applicant(s) WATANABE, KAZUMITSU	
	Examiner Anthony J. Daniels	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/19/2005 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1,8,15-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3,5-7,15,17,19,21,22,25,26,29,30,33,34 are rejected under 35 U.S.C. 102(e) as being anticipated by Horie et al. (US # 6,720,997).

As to claim 1, Horie et al. teaches a digital camera (Figures 1-3, electronic camera “1”) comprising: a photographing unit which picks-up an image and obtains image data (Figure 6,

Art Unit: 2615

CCD "203"); a storage control unit (Figure 6, controller "20") which stores the image data in the form of an image data file in a predetermined manner in a recording medium (Figure 6 image processor "23"; Figure 7, image memory "231", HD card "10"; *{Examiner refers to recording medium as the image memory "231" and the HD card "10".}*); a reconstruction control unit (Figure 6, controller "20") which reconstructs the image data stored in said recording medium (Figure 7, flow from the image memory "231" to subsequent circuits); an image data processing unit which combines the image data picked-up by said photographing unit and the image data reconstructed by said reconstruction control unit to produce an image data (Figure 7, image combining circuit "236"; *{The image data picked-up by the photographing unit is considered the partial image "Ga" and the partial image "Gb". Also, see Figure 11.}*), and makes said recording medium store the produced image data (Figure 7, flow to HD card "10" after image combination; Figure 23, "#62" and "#66"); a display unit which displays the images (Figure 6, LCD "11"); a display control unit (Figure 6, LCD drive controller "24") which makes said display unit simultaneously display the image data obtained by said photographing unit for monitoring and the image data reconstructed by said reconstruction control unit, or which makes said display unit display the image data produced by said image data processing unit (Figure 4, "2 whole image display"; *{A reduced version of the image data picked-up by the photographing unit and the image data reconstructed by the reconstruction unit is simultaneously displayed as seen in Figure 4.}*); and an operational instruction inputting unit (Figure 2, shutter button "6", high resolution mode switch "7", and row and column number setting switch "14a" and "14b" together is the operational instruction inputting unit) which provides operational instruction signals to said photographing unit, said storage control unit, said image data processing unit, and

Art Unit: 2615

said display control unit (*The switching of the shutter button "6", together with switches "14a, 14b" and "7", initiates photographing, storage, image combining, and whole image display.*), wherein said operation instruction signals include translation instructions input by a user to move a first image with respect to a second image (Col. 11, Lines 26-67; Col. 12, Lines 1-14; *{In the cited teachings of Horie et al., the four partially sensed images (in this embodiment) are taken by the electronic camera with one lens. The lens is moved by a motor to sense all four partial images, sequentially (Col. 9, Lines 38-53). Therefore, the images are obtained at oblique angles (Figure 5), making the geometric transformation necessary for proper image combination when the user selects the high resolution mode by the mode switch "7". The geometric transformations consist of parallel movement, enlargement/reduction, or rotation. Each of these transformations requires the movement of one of the partial images with respect to another (Figure 11).}*).

As to claim 2, Horie et al. teaches the digital camera according to claim 1, wherein said operational instruction inputting unit can designate a portion of the plurality of the image data where the images are to be combined (Col. 13, Lines 15-18, "...boundary portions..."; *{The row and column number setting switch instructs a combination "Ga" with "Gb" when four or more partial images are selected.}*).

As to claim 3, Horie et al. teaches the digital camera according to claim 1, wherein said operational instruction inputting unit can designate whether the image data is to be displayed in enlarged or reduced manner (Figure 4, whole image display; Figure 6, zoom control circuit "6").

Art Unit: 2615

As to claim 5, Horie et al. teaches the digital camera according to claim 1, wherein said image data processing unit can combine a plurality of the image data recorded in said recording medium (Col. 13, Lines 15-24).

As to claim 6, Horie et al. teaches the digital camera according to claim 5, wherein said image data processing unit can perform swing and/or tilt correction when combining a plurality of the image data stored in said recording medium (Figure 11, rotation).

As to claim 7, Horie et al. teaches the digital camera according to claim 5, wherein said image data processing unit can perform color correction when combining a plurality of the image data stored in said recording medium (Col. 17, Lines 32-35).

As to claims 15,19, the limitations of claims 15,19 can be found in claim 1. Therefore, claims 15,19 are analyzed and rejected as previously discussed with respect to claim 1.

As to claim 17, claim 17 is a method claim corresponding to the apparatus claim 1. Therefore claim 17 is analyzed and rejected as previously discussed with respect to claim 1.

As to claims 21,22, the first and second images are both obtained by the photographing unit for monitoring (Figure 4) and reconstructed by the reconstruction unit (Figure 7, image memory "231").

As to claims 25 and 26, 29 and 30, 33 and 34, the limitations in these claims can be found in claims 21 and 22. Therefore, claims 25 and 26, 29 and 30, 33 and 34 are analyzed and rejected as previously discussed with respect to claims 21,22.

Claim Rejections - 35 USC § 103

Art Unit: 2615

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horie et al. (US # 6,720,997).

As to claim 4, Horie et al. teaches the digital camera according to claim 1. Although Horie et al. does not state it explicitly, **Official Notice** is taken that the concept of using touch panels on digital cameras to provide camera instructions is well known and expected in the art. One of ordinary skill in the art would have been motivated to do this, because touch panels provide ease of use without the need of space consuming mechanical switches.

5. Claims 8-14,16,18,20,23,24,27,28,31,32,35,36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horie et al. (US # 6,720,997) in view of Fukushima et al. (US # 5,903,303).

As to claim 8, Horie et al. teaches a digital camera (Figures 1-3, electronic camera "1") comprising: a photographing unit which picks-up an image and obtains image data (Figure 6, CCD "203"); a storage control unit (Figure 6, controller "20") which stores the image data in the form of an image data file in a predetermined manner in a recording medium (Figure 6, image processor "23"; Figure 7, image memory "231", HD card "10"; *{Examiner refers to recording medium as the image memory "231" and the HD card "10"}*); a reconstruction control unit (Figure 6, controller "20") which reconstructs the image data stored in said recording medium

Art Unit: 2615

(Figure 7, flow from the image memory "231" to subsequent circuits); an image data processing unit which combines the image data picked-up by said photographing unit and the image data reconstructed by said reconstruction control unit to produce an image data (Figure 7, image combining circuit "236"; *{The image data picked-up by the photographing unit is considered the partial image "Ga" and the partial image "Gb". Also, see Figure 11.}*), and makes said recording medium store the produced image data (Figure 7, flow to HD card "10" after image combination; Figure 23, "#62" and "#66"); a display unit which displays the images (Figure 6, LCD "11"); a display control unit (Figure 6, LCD drive controller "24") which makes said display unit simultaneously display the image data obtained by said photographing unit for monitoring and the image data reconstructed by said reconstruction control unit, or which makes said display unit display the image data produced by said image data processing unit (Figure 4, "2 whole image display"; *{A reduced version of the image data picked-up by the photographing unit and the image data reconstructed by the reconstruction unit is simultaneously displayed as seen in Figure 4.}*); and an operational instruction inputting unit (Figure 2, shutter button "6", high resolution mode switch "7", and row and column number setting switch "14a" and "14b" together is the operational instruction inputting unit) which provides operational instruction signals to said photographing unit, said storage control unit, said image data processing unit, and said display control unit (*The switching of the shutter button "6", together with switches "14a, 14b" and "7", initiates photographing, storage, image combining, and whole image display.*), wherein said operation instruction signals include translation instructions input by a user to move a first image with respect to a second image (Col. 11, Lines 26-67; Col. 12, Lines 1-14; *{In the cited teachings of Horie et al., the four partially sensed images (in this embodiment) are taken by*

Art Unit: 2615

the electronic camera with one lens. The lens is moved by a motor to sense all four partial images, sequentially (Col. 9, Lines 38-53). Therefore, the images are obtained at oblique angles (Figure 5), making the geometric transformation necessary for proper image combination when the user selects the high resolution mode by the mode switch "7". The geometric transformations consist of parallel movement, enlargement/reduction, or rotation. Each of these transformations requires the movement of one of the partial images with respect to another (Figure 11).}). The claim differs from Horie et al. in that it further requires that said photographing unit includes a plurality of CCDS which simultaneously pick-up an image of same or a plurality of objects and obtain a plurality of image data, said display control unit can make said display unit simultaneously display the plurality of image data obtained by said photographing unit.

In the same field of endeavor, Fukushima et al. teaches a digital camera (Figure 1) including two CCD imagers (Figure 1, CCD imagers "10R" and "10L") with associated lenses (Figure 1, lenses "8R" and "8L") and exposure control members (Figure 1, exposure control members "9R" and "9L"). The digital camera combines images together that are taken by the two CCD imagers (Col. 3, Lines 39-42). In light of the teaching of Fukushima et al., it would have been obvious to one of ordinary skill in the art to include the second image pickup portion of Fukushima et al. in the system of Horie et al., because an artisan of ordinary skill in the art would have recognized that providing the second image pickup portion would provide a faster solution for the high resolution image pickup mode in Horie et al.

As to claim 9, Horie et al., as modified by Fukushima et al., teaches the digital camera according to claim 8, wherein said image data processing unit can combine a plurality of image

Art Unit: 2615

data when simultaneously displaying the plurality of the image data on said display control unit (see Horie et al., Figure 4, “2 whole image display”; Figure 22, “#46”; Figure 23, “#62”).

As to claim 10, Horie et al., as modified by Fukushima et al., teaches the digital camera according to claim 8, wherein said image data processing unit can perform color correction for each of the plurality of image data (see Horie et al., Col. 17, Lines 32-35).

As to claim 11, Horie et al., as modified by Fukushima et al., teaches the digital camera according to claim 8, wherein said photographing unit can simultaneously obtain a plurality of images of the same object at different zooming ratios (see Fukushima et al., Col. 3, Lines 26,27; *{Since different drive portions are controlling zoom drive, it is inherent that the zooming ratios can different from each other.}*).

As to claim 12, Horie et al., as modified by Fukushima et al., teaches the digital camera according to claim 8, wherein said photographing unit can simultaneously obtain a plurality of images of the same object at different shutter speed (see Fukushima et al., Col. 4, Lines 41-50, *{Since different drive portions are controlling the shutter, it is inherent that the shutter speeds can different from each other.}*).

As to claim 13, Horie et al., as modified by Fukushima et al. teaches the digital camera according to claim 8, wherein said photographing unit can simultaneously obtain a plurality of images of the same object at different exposure values (see Fukushima et al., Col. 4, Lines 41-50, *{Since different drive portions are controlling the exposure control members, it is inherent that the exposure values can different from each other.}*).

As to claim 14, Horie et al., as modified by Fukushima et al., teaches the digital camera according to claim 8, wherein said photographing unit can simultaneously obtain a plurality of

Art Unit: 2615

images of the same object at different white balance values (see Horie et al., Col. 11, Lines 26-31).

As to claims **16,20**, the limitations of claims 16,20 can be found in claim 8. Therefore, claims 16,20 are analyzed and rejected as previously discussed with respect to claim 8.

As to claim **18**, claim 18 is a method claim corresponding to the apparatus claim 8. Therefore claim 18 is analyzed and rejected as previously discussed with respect to claim 8.

As to claims **23,24**, the first and second images are both obtained by the photographing unit for monitoring (see Horie et al., Figure 4) and reconstructed by the reconstruction unit (see Horie et al., Figure 7, image memory “231”).

As to claims **27 and 28, 31 and 32, 35 and 36**, the limitations in these claims can be found in claims 23 and 24. Therefore, claims 27 and 28, 31 and 32, 35 and 36 are analyzed and rejected as previously discussed with respect to claims 23,24.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Daniels whose telephone number is (571) 272-7362. The examiner can normally be reached on 8:00 A.M. - 4:30 P.M..

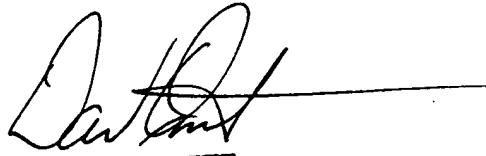
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2615

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AD

1/5/2005



DAVID OMETZ
SUPERVISORY PATENT EXAMINER